



March 11, 2016

Robert A. Kaplan  
Acting Regional Administrator  
U.S. Environmental Protection Agency - Region 5  
77 West Jackson Blvd.  
Mail Code: R-19J  
Chicago, IL 60604-3507

Subject: Follow-Up to Wisconsin's 2010 1-Hour Sulfur Dioxide (SO<sub>2</sub>) National Ambient Air Quality Standards (NAAQS) Data Requirements Rule January 2016 Submittal

Dear Acting Administrator Kaplan:

This letter is in response to the email sent by Mr. John Summerhays on February 29, 2016. In his email, Mr. Summerhays acknowledged receipt of the letter sent by the Wisconsin Department of Natural Resources (WDNR) on January 15, 2016 identifying sources for further characterization under the 2010 1-Hour SO<sub>2</sub> NAAQS Data Requirements Rule (DRR). The email requested that Wisconsin provide a rationale for excluding certain sources from its January submittal and requested that the state potentially include one additional source (USG Interiors, Walworth County) for further characterization under the DRR.

Sources that exceeded 2000 tons per year of SO<sub>2</sub> in 2014

EPA's final DRR requires states to characterize ambient SO<sub>2</sub> levels around sources that emitted more than 2,000 tons per year (tpy) of SO<sub>2</sub> in the most recent year in which this data is available. When developing the January 15 submittal, WDNR reviewed sources that emitted greater than 2000 tons per year (tpy) in 2014 and to see if these sources exceeded 2000 tpy in 2015 – the latest calendar year data was available. WDNR verified the preliminary 2015 emission data with sources and confirmed these reductions were due to permanent and federally enforceable limits or conversions. These sources have either already entered this data into the emissions inventory database or otherwise confirmed their 2015 emissions estimates in writing to WDNR. The table below lists the sources in question, their 2015 emissions, and the permits that make these reductions permanent and federally enforceable.

Facility	County	2014 Emissions (tpy)	2015 Emissions (tpy)	Reason for permanent and federally enforceable emission reductions in 2015
Wisconsin Public Service Corporation – JP Pulliam Plant	Brown	2,476	959	Construction permit #13-DMM-177
Dairyland Power Coop– Alma Site	Buffalo	3,637	704	Construction permit #13-SMS-138-R1
Packaging Corporation of America – Tomahawk	Lincoln	4,941	1,757	Construction permit #14-DMM-177 Construction permit #13-MDW-099
Wisconsin Electric Power Company – Valley Station	Milwaukee	3,396	1,076	Construction permit #13-RSG-067
Domtar A W LLC – Nekoosa	Wood	2,955	938	Construction permit #13-JJW-131

### USG Interiors (Walworth County)

In the February 29 email, EPA identified USG Interiors in Walworth (Walworth County) as emitting less than 2,000 tpy but potentially warranting listing as subject to DRR requirements. EPA is basing its concern on erroneous information and WDNR strongly disagrees with this recommendation to add this source to the DRR for reasons set forth below.

USG Walworth is a manufacturer of acoustic tile that includes a mineral wool cupola that burns coke. The facility had an annual throughput of 43,374 tons of coke in 2014. USG used an emission factor of 18.69 lb of SO<sub>2</sub>/ton of coke and reported emissions of 420 tons SO<sub>2</sub> in 2014.

EPA's document describing its rationale for including USG Walworth in the DRR contains numerous factual errors, including the following:

- EPA implies that WDNR used only an AP-42 SO<sub>2</sub> emission factor to assess facility SO<sub>2</sub> emissions. This is incorrect. In preliminary determination and analysis for the Title V renewal, WDNR estimated maximum emissions from the mineral wool cupola to be 251.8 lb SO<sub>2</sub>/hr, based on a combined mass balance and AP-42 emission factor approach. This equates to approximately 21.69 lb SO<sub>2</sub>/ton of coke, which is above the AP-42 emission factor.
- EPA describes the 68-foot stack height on the mineral wool cupola as "relatively short." In fact, the stack height is both substantial and facilitative of emissions dispersion. Refined air dispersion modeling was performed for the facility's Title V renewal using the maximum emission rate of 251.8 lb SO<sub>2</sub>/hr for the annual, 24-hour and 3-hour SO<sub>2</sub> standards. For the 24-hour standard (the worst case modeled), the resulting concentration was only 53% of the 24-hour NAAQS.
- EPA raises concerns about how WDNR addressed applicable emissions limitations of the facility's Title V renewal. WDNR had numerous conversations with Region V permitting staff and attorneys regarding a footnote in the draft Title V renewal stating that the applicable limitation of 5.5 lb SO<sub>2</sub>/million Btu heat input applies only to the emissions from fuel combustion. In its February 29 document, EPA claims that, following these discussions, WDNR failed to remove the footnote. In fact, WDNR did remove the footnote in the final permit, as requested by EPA. However, WDNR continues to maintain that the emission limit of 5.5 lb/mmBtu heat input from s. NR 417.07(2)(b), as approved into Wisconsin's SIP, applies only to emissions from fuel combustion.

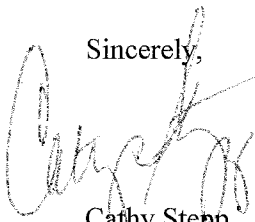
A stack test of the source was performed on July 1, 2015 to verify the estimated emission rate of SO<sub>2</sub> from both fuel burning and process at the cupola (Stack S12). The stack test showed a total emission rate of 121.95 lb SO<sub>2</sub>/hr. This includes both fuel and process emissions and is less than half the rate modeled for the Title V renewal (251.8 lb SO<sub>2</sub>/hr), as noted above.

EPA's stated rationale for including USG Walworth in the DRR is based on incorrect information and does not support a concern that emissions from USG present a high potential for causing violations of the SO<sub>2</sub> air quality standard. WDNR did account for the sulfur from both the fuel burning and process when it calculated potential emissions from the source during the Title V renewal. Air quality modeling using these calculated values shows compliance with the annual, 24-hour, and 3-hour SO<sub>2</sub> NAAQS by a considerable margin. Even if WDNR were to use the emission factor EPA suggests in its rationale, the SO<sub>2</sub> emissions from this facility in 2014 would be 776 tpy. This is over 60% below the 2000 tpy threshold established in the DRR. Further, there is no other significant source of SO<sub>2</sub> emissions in the area that would warrant characterizing the air quality around this source. EPA appears to want to use the DRR to address issues related to this source raised through the permitting and compliance programs; this is contrary to the intent and purpose of the DRR. WDNR does not support the arbitrary inclusion of this source for further characterization under the DRR. Rather, we recommend EPA consider the information provided here and not pursue further action with respect to USG in the context of the DRR. Nationally EPA has said this rule was designed to evaluate the largest emitters of SO<sub>2</sub>, choosing the 2000 tpy threshold over lower potential thresholds.

Attached for EPA's reference are the 2015 stack test, final Title V renewal for this source, the 2014 air emissions inventory report, the modeling results memo, and WDNR's response to comments on the draft Title V renewal, which includes WDNR's legal opinion concerning the applicability of s. NR 417.07(2), Wis. Adm. Code.

Thank you for the opportunity to provide this additional information. If you have any questions or require additional information, please contact Gail Good, at [Gail.Good@wisconsin.gov](mailto:Gail.Good@wisconsin.gov) or 608-264-8537.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Cathy Stepp', is written over the word 'Sincerely,'.

Cathy Stepp  
Secretary

cc: Pat Stevens, AD/8  
Bart Sponseller, AD/7  
Gail Good, AM/7  
David Bizot, AM/7  
Kristin Hart, AM/7  
Mike Friedlander, AM/7  
Kendra Fisher, LS/8

